



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Michael F. Angelo et al.

Serial No.: 09/540,697

Filed: March 31, 2000

For: Method and Apparatus to Provide
Enhanced Computer Protection

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Group Art Unit: 2135

Examiner: Truong, Thanhnga B.

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October 14, 2005

Date


David M. Hoffman

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Dear Sir:

In accordance with the OG Notice of July 12, 2005, Applicants respectfully submit this Pre-Appeal Brief Request for Review. This Request is being filed concurrently with a Notice of Appeal.

In the Office Action, the Examiner rejected claims 1-10, 12-19, 21-30, 32-26, 38-43, 45-49, and 51-55 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,778,070 to Mattison (hereafter referred to as "the Mattison reference") in view of U.S. Patent No. 6,308,265 to Miller (hereafter referred to as "the Miller reference"). Applicants, however, respectfully submit that this rejection is improper.

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (B.P.A.I. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). Moreover, if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984); *see* M.P.E.P. §2143.01.

With the foregoing legal precedent in mind, Applicants respectfully submit that the Mattison and Miller references do not disclose all of the features recited in the pending claims. The present application “relates generally to protecting a computer system and, more particularly, to protecting at least one of a BIOS, Boot-Block, CMOS, and NVRAM in a computer system.” Page 2, lines 7-9. In one embodiment, “the boot-block [program] is used to validate the BIOS using an encryption algorithm and the BIOS is then used to validate the Boot Block using an encryption algorithm. Indeed, this particular combination may provide the best security for the computer system.” Page 20, line 19-24. Independent claim 1 recites a “boot-block program having a *first validation routine* configured to validate the BIOS program... and the BIOS program having a *second validation routine* configured to validate the boot-block program.” (Emphasis added). Independent claim 21 recites “means for

validating a BIOS program... by a boot-block program” and “means for validating the boot-block program... *by the BIOS program.*” (Emphasis added). Independent claim 42 recites a method comprising “validating a BIOS program...by a boot-block program” and “validating the boot-block program.... *by the BIOS program.*” (Emphasis added).

Applicants respectfully assert that claims 1, 29, and 42 are allowable because the cited references, taken alone or in combination, fail to teach or suggest the above-recited claim features. In contrast to the present application, the Mattison reference is directed towards a method for protecting “flash memory containing a program such as a Basic Input/Output System from any unauthorized reprogramming efforts.” Mattison, col. 2, lines 56-60. The mechanism disclosed in the Mattison reference performs this function by determining whether a flash memory upgrade is valid, and then only permitting the flash memory to be reflashed if the flash memory upgrade is valid. *See* Mattison, col. 9, lines 52-57; *see also* Fig. 3, blocks 308-314. At no point during this process, does the mechanism described in the Mattison reference affect the booting process of a computer - it merely prevents a BIOS upgrade. *See id.* Accordingly, the software described in the Mattison reference clearly would not qualify as a “boot-block program,” as recited in independent claims 1, 29, and 42. As such, the Mattison reference does not disclose a “boot-block” program, and thus cannot disclose a “BIOS program having a second validation routine configured to *validate a boot-block program,*” as recited in claim 1 or the other above-described limitations of claims 29 and 42, because there is simply no boot-block program present in the Mattison reference.

The Miller reference cannot cure this deficiency in the Mattison reference, because the Miller reference also does not disclose a BIOS program having a second validation

routine configured to validate a boot-block program, as recited in independent claims 1, 19, and 41. Specifically, the Miller reference discloses a “method for protecting boot-block code *while allowing updating to BIOS code* during a flash BIOS operation.” Miller, Abstract, lines 1-3 (emphasis added). In particular, the Miller reference discloses a method for ensuring that boot-block code is not corrupted when the system BIOS is upgraded. *See* Miller, col. 5, line 23-31. Contrary to the Examiner’s assertions in the Advisory Action mailed September 8, 2005, however, the validation instructions disclosed in the Miller reference are clearly *not stored within a BIOS program*. *See* Advisory Action, page 2, lines 8-17.

As explained in previous responses, Applicants cannot find and the Examiner has not cited any section of the Miller reference that mentions or even suggests that the BIOS disclosed in the Miller reference is configured to validate the boot-block code. Rather, in contrast, it appears that the validation routine described in Fig. 3 of the Miller reference is actually a part of either the PC’s software operating system or a separate software program running on the described PC. *See* Miller, col. 5, line 32 – col. 6, line 44.


Moreover, any attempt to modify the Miller reference to function as the Examiner suggested would also be improper, because it would render the system described in the Miller reference unfit for its intended purpose. As described above, the Miller reference is directed towards a method for protecting boot-block code while updating a BIOS image during a flash BIOS operation. Miller, Abstract, lines 1-3. For this reason, the validation routine disclosed in Fig. 3 of the Miller reference is executed while the BIOS program is being upgraded (i.e., replaced) with a new BIOS image. *See* Miller, Fig. 3, blocks 350 and 360. As such, modifying the Miller reference to place the validation routine within the BIOS

image would make the system disclosed in Miller unfit for its intended purpose because *BIOS image could not be upgraded* as it would have to remain intact to validate the boot block code. *See* Miller, col. 5, lines 32-44; *see also*, col. 6, lines 22-44. In other words, the BIOS program of the Miller reference cannot store the instructions for checking the boot-block program, because at the time that the Miller system checks the boot-block program, *the BIOS program itself is in the midst of being erased and upgraded. See id.*

For at least the reasons set forth above, Applicants respectfully assert that neither the Mattison reference nor the Miller reference disclose or suggest a “BIOS program having a second validation routine configured to *validate a boot-block program*,” as recited in claim 1 or the other above-described limitations of claims 29 and 42. Accordingly, Applicants respectfully request allowance of independent claims 1, 29, and 42, and the claims that depend therefrom.

Respectfully submitted,

Date: October 14, 2005


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